WHAT IS CLAIMED IS:

1. A device for simultaneously expressing milk from first and second breasts comprising:

a first expressor, said first expressor having a first cup for fitting on the first breast, a first cup outlet and a first collection vessel;

a second expressor, said second expressor having a second cup for fitting on the second breast, a second cup outlet and a second collection vessel;

a pump operably connected to said first expressor and second expressor, said pump creating a vacuum at said first and second outlets which engages and expresses the milk from the first and second breasts, the milk then draining into said first and second collection vessels;

a first vacuum adjustment on said first expressor;

a second vacuum adjustment on said second expressor; and

at least one vacuum release on said first or said second expressor;

whereby the vacuum at said first and second expressors can be individually adjusted and mutually released.

2. The device of claim 1 comprising a first vacuum release on said first expressor and a second vacuum release on said second expressor, wherein the vacuum at both said first and second expressors is released by said first vacuum release or said second vacuum release.

3. The device of claim 1 wherein

said pump creates the vacuum at said first outlet through a first vacuum line secured on one end to said first expressor, said first expressor having a first vacuum port between said first vacuum line and said first outlet,

said first vacuum adjustment including a first pin which is threaded into an orifice in said first expressor such that an end of said first pin enters said first vacuum port and regulates the vacuum at said first outlet.

4. The device of claim 3 wherein said first pin is spring-loaded to open said first vacuum port to the extent allowed by an adjustment of said pin in said threads when said first pin is released, said first pin opening said vacuum port when said first pin is pressed so that said vacuum is lost.

5. A device for expressing milk from a breast comprising:

an expressor, said expressor having a cup for fitting on the breast and a cup outlet;

a pump connected to said expressor, said pump creating a vacuum at said cup outlet which engages and expresses the milk from the breast;

a vacuum adjustment for said expressor; and

a vacuum release for said expressor;

whereby the vacuum at said expressor can be adjusted and released.

6. An air pump comprising a movable diaphragm in a chamber, at least one output port, a shaft which passes through said diaphragm and a motor which moves said diaphragm axially, said motor rotating around the axis of said shaft.

7. An air pump comprising a movable diaphragm in a chamber, at least one output port, and a motor having a shaft which moves axially, said shaft being connected to said diaphragm to oscillate said diaphragm in a back and forth motion.

8. An air pump comprising a movable diaphragm in a chamber, at least one output port, and a motor having a rotating shaft, said shaft being in threaded engagement with said diaphragm so that rotation of said shaft in forward and reverse directions moves said diaphragm back and forth in said chamber.

9. A device for expressing milk from a breast comprising

a manifold having a vacuum path, said vacuum path having an inlet, an outlet and a midsection between said inlet and said outlet, said midsection being beneath said inlet and said outlet in use,

a vacuum source connected to said inlet,

a breast cup connected to said outlet and adapted for securement to the breast,

a milk collector having a collector inlet operatively connected to said midsection of said vacuum path, and

a check valve between said vacuum path and said milk collector,

whereby milk which is drawn from the breast by said vacuum source falls through said check valve and into said milk collector by force of gravity and is substantially not drawn through said vacuum inlet.

10. Apparatus for expressing milk from a breast comprising

a milk collector unit having manifold, the manifold having a vacuum path and a pulsating pressure path,

a collection vessel operatively connected to said vacuum path,

a cup assembly, said cup assembly having a housing having an inlet and an outlet, a pad located in the input end of said housing, and a liner extending from said housing inlet to said housing outlet, said liner being secured to said housing to form a space between said housing and said liner which is in communication with said pulsating pressure path, pressure in said pulsating path pushing said liner inwardly within said housing, and

a hollow boss which prevents the pressure from pushing a portion of said liner inwardly.

11. The apparatus of claim 10 wherein said manifold assembly includes a manifold to which said collection vessel is secured, and a removable cap, said cup assembly being secured to said manifold assembly by both said manifold and said cap.

12. The apparatus of claim 11 wherein said vacuum path begins in said cap and passes through said manifold to said cup assembly, and

said pulsating pressure path passes through said cap to a pressure port in said cup assembly, said pressure port being in communication with said space between said housing and said liner.

13. A breast cup assembly comprising

a hollow housing having a milk inlet, a milk outlet, and an air pulsation port,

a pad located in said inlet, and

a liner extending from said inlet to said outlet, said liner being sealed to said inlet and outlet by a press fit connection, said liner forming a space between said housing and said liner, said space being in communication with said air pulsation port.

14. A milk-collecting flow-through bag, comprising:

a neck portion defining an internal channel for passing milk;

a device defining a first aperture for dividing the internal channel into a first internal channel portion and into a second internal channel portion, and a second aperture for coupling the second internal channel portion to an environment external to the neck portion; and

a milk-collecting bag portion coupled for receiving milk from the second internal channel portion.

15. The bag of claim 14, wherein the neck includes a breast cup overlay at the distal end for overlaying a breast cup.

16. The bag of claim 14, comprising two rigid prongs directed towards the bag for causing duck-bill check valve action.

17. The bag of claim 14, wherein the milk-collecting bag portion includes grain for easy removal.

18. The bag of claim 14, wherein the milk-collecting bag portion includes a device for sealing the bag closed.

19. The bag of claim 14, further comprising an attachment mechanism for coupling the bag portion to the breast cup.

20. A milk-collecting flow-through bag, comprising:

means defining an internal channel for passing milk;

means defining a first aperture for dividing the internal channel into a first internal channel portion and into a second internal channel portion, and a second

aperture for coupling the second internal channel portion to an environment external to the neck portion; and

means for receiving milk from the second internal channel portion.

21. An article of manufacture, comprising:

a framework defining a vacuum/milk communication aperture; and

a vacuum inlet coupled to the framework defining a vacuum aperture.

22. The article of claim 20, wherein the vacuum inlet includes a spout.